

**TABLE 1**  
**TIER 1 SMART GROWTH INDICATORS**  
**SAN JOAQUIN VALLEY GROWTH RESPONSE STUDY**  
26-Feb-04

**Finalized during Workshop #2**

| Indicator # | Indicator Categories/Indicators  | Indicators Directly Available From Models | Candidates for Economic & Environ. Justice | Status  | Related General Plan Policies |                |               |                              |
|-------------|--|---|--|---|-------------------------------|----------------|---------------|------------------------------|
|             |  |   |  |   | City of Clovis                | City of Fresno | Fresno County | Madera County                |
| <b>1</b>    | <b><i>Economics</i></b>  |   |  |   |                               | *              | *             | *                            |
| a           | Travel cost (\$/year/capita) to traveler by mode   | Partially                                 | X  | Requires TP+ run  |                               |                |               |                              |
| b           | Infrastructure/Capital Facilities Costs - relative road, water, sewer, storm drain, education facility, and emergency service facilities costs | INDEX & Post-Process                      |  | Requires TP+ run to define roadway improvements             |                               | *              | *             | *                            |
| c           | Average cost of real estate development  | Partially                                 |  | Costs not developed at this point                           |                               |                |               |                              |
| <b>2</b>    | <b><i>Congestion Relief</i></b>  |   |  |   |                               |                | *             |                              |
| a           | Vehicle hours of delay (hours/year/capita)   | COG Models                                | X  | Requires TP+ run  |                               | 2Ce, 2Ci, 2Cj  | *             |                              |
| b           | Congestion (Lane Miles at LOS E/F) by Facility Type and Sub-Region in tabular format.  | COG Models                                |  | Requires TP+ run  |                               | 2Ce, 2Ci, 2Cj  | *             |                              |
| <b>3</b>    | <b><i>Improved Air Quality</i></b>   |   |  |   |                               | *              | *             | *                            |
| a           | Air pollution (Nox, HC, CO, & CO2) (lbs/year/capita of non-attainment pollutants) emitted from light vehicles                                  | Partially                                 |  | INDEX, final from COFCG TP+ post-process                    | 3.3                           | Goal 6, Goal 9 |               | 1D3, 2C1, 2C2, 2G1           |
| b           | Air pollution (lbs/year/capita of non-attainment pollutants) emitted from heavy vehicles   | Partially                                 |  | Not available from INDEX, final from COFCG TP+ post-process | 3.3                           | Goal 6, Goal 9 |               | 1D3, 2C1, 2C2, 2G1           |
| c           | NOX and ROG emissions per vehicle mile traveled  | Partially                                 |  | COFCG TP+ post-process                                      | 3.3                           | Goal 9         |               | 1C1, 1C4, 1D3, 1E1, 2C2, 2G1 |
| d           | NOX and ROG emissions per trip   | Partially                                 |  | COFCG TP+ post-process                                      | 3.3                           | Goal 9         |               | 1C1, 1C4, 1D3, 1E1, 2C2, 2G1 |
| e           | Non-attainment emissions from transit vehicles/systems   | Partially                                 |  | COFCG TP+ post-process                                      |                               |                |               |                              |

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|-------------|--|---|--|---|-------------------------------|--|-------------------------------|------------------------------|
|             |  |   |  |   | City of Clovis                | City of Fresno                               | Fresno County                 | Madera County                |
| <b>4</b>    | <b>Travel Time &amp; Length (Jobs Housing Balance)</b>   |   |  |   |                               | *  | *                             | *                            |
| a           | Vehicle miles traveled (miles/year/capita)   | INDEX / COG Models                        | X  | Preliminary Home and Non-Home based from INDEX, final from COFCG TP+          | 3.3                           | Goal 9                                       |                               | 1C1, 1C4, 1D3, 1E1, 2C2, 2G1 |
| b           | Vehicle hours traveled (hours/year/capita)   | INDEX / COG Models                        | X  | Preliminary Home and Non-Home based from INDEX, final from COFCG TP+          |                               | 2Ce, 2Ci, 2Cj                                | *                             | *                            |
| c           | Daily and Peak Hour Vehicle Trip Time (Minutes) by Trip Purpose  | COG Models, INDEX, 4D                     |  | Requires TP+ run  | 3.3                           | Goal 9                                       |                               | 1C1, 1C4, 1D3, 1E1, 2C2, 2G1 |
| d           | Job proximity to services (1/4 mile walking distance, average for study region displayed graphically and in tabular format - how many jobs are within 1/4 mile of services). | INDEX                                     |  | Requires re-writing INDEX indicator - adjacency to transit will be calculated | 3.2                           | Elm  | LU F8 PF 1.2                  |                              |
| <b>5</b>    | <b>Land and Water Consumption</b>  |   |  |   |                               | *  | *                             | *                            |
| a           | Land area taken up by new growth (total acres and acres per 1000 population)   | What if?                                  |  | Will be measured by What if?  | 3.2, 4.2                      | Goal 9, C2e, 2Cj, Elj, Elm *                 | LU F8 LUF10 LUF20             | 1D3, 2G1                     |
| b           | Percentage of growth that is infill  | What if? / INDEX                          |  | geography of what would be considered "infill"                                | 3.2, 4.2                      | Goal 9, C2e, 2Cj, Elj, Elm *                 | LU F8 LUF10 LUF20             | 1D3, 2G1                     |
| b2          | Development Footprint (total gross acres per 1000 residents) combined measurement of infill and density of population and employment   | INDEX                                     |  | Will be measured by INDEX   | 2.3, 3.2, 4.2                 | Goal 5, Goal 9, Goal 9, C2e, 2Cj, Elj, Elm * | LU F3 LU F4 LU F8 LUF10 LUF20 | 1C2, 1D3, 2G1                |
| c           | Population density   | What if? / INDEX                          |  | Will be measured by INDEX   | 2.3                           | Goal 5, Goal 9 *                             | LU F3 LU F4                   | 1C2                          |
| c2          | Residential Footprint (total residential acres per 1000 residents)   | INDEX                                     |  | Will be measured by INDEX   | 2.3                           | Goal 5, Goal 9 *                             | LU F3 LU F4                   | 1C2                          |
| d           | Employment density   | What if? / INDEX                          |  | Will be measured by INDEX   | 2.3                           | Goal 5, Goal 9 *                             | LU F3 LU F4                   | 1C2                          |
| e           | Acres of agriculture remaining (orchards, crops, and grazing land)   | What if?                                  |  | Will be measured by What if?  | 3.2, 4.2                      | Goal 9, C2e, 2Cj, Elj, Elm *                 | LU F8 LUF10 LUF20             | 1D3, 2G1                     |

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|             |  |   |  |  | City of Clovis                | City of Fresno               | Fresno County     | Madera County                |
| g           | Acres of public parks per capita   | INDEX                                     |  | Current land use data does not provide adequate mapping of parks locations | 3.2, 4.2                      | Goal 9, C2e, 2Cj, Elj, Elm * | LU F8 LUF10 LUF20 | 1D3, 2G1                     |
| h           | Use Mix (mix of developed land uses among user defined grid)   | INDEX                                     |  | Will be measured by INDEX  |                               |                              |                   |                              |
|             |  |   |  |  |                               |                              |                   |                              |
| <b>6</b>    | <b>Travel Mode Shift/Viability of Increased Transit Usage</b>  |   |  |  |                               | *                            | *                 |                              |
| a           | Transit Adjacency to Housing substituted for earlier requested measure (% of residences within 1/4 mile of transit corridor)<br><br>[Population density in transit oriented area (w/in 1/2 mile of BRT or rail and w/in 1/4 mile of bus corridor)] | INDEX                                     | X  | Will be measured by INDEX  | 5.4, 5.6                      | A1h *                        | LU F3             | 1B2, 1C1, 1C2, 1D3, 1E1, 1F1 |
| b           | Transit Adjacency to Employment substituted for earlier requested measure (% of employees within 1/4 mile of transit corridor)<br><br>[Employment density in transit oriented areas (w/in 1/2 mile of  | INDEX                                     | X  | Will be measured by INDEX  | 5.4, 5.6                      | A1h *                        | LU F3             | 1B2, 1C1, 1C2, 1D3, 1E1, 1F1 |
| c           | Mode split proxy (change in daily and peak hour vehicle trips by purpose)  | INDEX / COG Models                        | X  | INDEX, final from COFCG TP+, possibly including Modes Split model          | 3.1                           | Goal 6 *                     | TR B3             | 2C1                          |

\* Indicator mentioned during SJVGRS Phase III presentations with Jurisdictions' elected officials

**TABLE 2**  
**TIER 2 SMART GROWTH INDICATORS**  
**SAN JOAQUIN VALLEY GROWTH RESPONSE STUDY**  
**26-Feb-04**

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| Indicator # | Indicator Categories/Indicators   | Indicators Directly Available From | Candidates for Economic & Environ. | Related General Plan Policies |                |                                  |                 |
|-------------|---|------------------------------------|------------------------------------|-------------------------------|----------------|----------------------------------|-----------------|
|             |   |                                    |                                    | City of Clovis                | City of Fresno | Fresno County                    | Madera County   |
| <b>1</b>    | <b>Economics</b>  |                                    |                                    |                               |                |                                  |                 |
| d           | Auto and transit vehicle costs  |                                    |                                    |                               |                |                                  |                 |
| e           | Assessment of property taxes paid   |                                    |                                    |                               |                |                                  |                 |
| f           | Housing density vs housing costs  |                                    |                                    |                               |                |                                  |                 |
| g           | Private development cost savings  |                                    |                                    |                               |                |                                  |                 |
| <b>2</b>    | <b>Congestion Relief</b>  |                                    |                                    |                               |                | *                                |                 |
| c           | Congestion (Lane Miles at LOS E/F) by Facility Type and Sub-Region in graphic format (locations of LOS E or F freeway, expressway and major arterial segments). | COG Models                         |                                    |                               | 2Ce, 2Ci, 2Cj  | *                                |                 |
| <b>4</b>    | <b>Travel Time &amp; Length (Jobs Housing Balance)</b>  |                                    |                                    |                               | *              | *                                | *               |
| e           | Jobs/Housing Balance  |                                    |                                    | 1.2, 1.3                      | Goal 9, C2e *  | LU F1<br>LU F2<br>LU F4<br>LUF27 | 1B2, 1F1, 1F2 * |
| f           | - Commute Travel Map (time to work from subareas of the region )  | INDEX                              | X                                  |                               | 2Ce, 2Ci, 2Cj  | *                                | *               |
| g           | - Jobs Mix Grid (1 or 2 mile grid of the region indicating mix of retail and non-retail jobs)   | INDEX                              | X                                  | 1.2, 1.3                      | Goal 9         | LU F1<br>LU F2<br>LU F4<br>LUF27 | 1B2             |
| h           | Transit miles and hours traveled  | COG Models                         |                                    |                               |                |                                  |                 |
| i           | Housing proximity to school (1/4 mile walking distance)   | INDEX                              | X                                  | 3.2                           | Elm            | LU F8<br>PF 1.2                  |                 |
| j           | Housing proximity to neighborhood shopping (1 mile bicycling distance)  | INDEX                              | X                                  | 3.2                           | Elm            | LU F8<br>PF 1.2                  |                 |
| k           | TAZ Destination Index (attraction-weighted travel time to all destinations from that TAZ)   | COG Models                         | X                                  | 1.1, 6.1, 6.2                 | B1a            | LU F1<br>LU F4<br>LU G3          | 1C4, 1F1 *      |

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|-------------|---|------------------------------------|------------------------------------|-------------------------------|------------------------------|-------------------------|---------------------|
|             |   |                                    |                                    | City of Clovis                | City of Fresno               | Fresno County           | Madera County       |
| <b>5</b>    | <b>Land and Water Consumption</b>   |                                    |                                    |                               | *                            | *                       | *                   |
| f           | Amount of water consumed. Moved from Tier 1 to Tier 2 as previously expected given lack of existing consumption data  | Partial                            |                                    | 4.1, 4.2                      | E22-I, E22-j, E22-k          | PF-C.25, PF-C.26*       | 3C1, 3C2, 3C3, 3C8* |
| h           | Density Index (Population + Employment per Acre) - see b2 in Table 1  | What if?                           |                                    | 2.3                           | Goal 5, Goal 9 *             | LU F3<br>LU F4          | 1C2                 |
| i           | Acres of open space including: environmental preserves (private, local, county, state, and federally owned) and working landscapes (agriculture and grazing land) | INDEX                              |                                    | 3.2, 4.2                      | Goal 9, C2e, 2Cj, Elj, Elm * | LU F8<br>LUF10<br>LUF20 | 1D3, 2G1            |
| j           | Consumption of agricultural land by crop classification to urban development  |                                    |                                    |                               |                              |                         |                     |
| <b>6</b>    | <b>Travel Mode Shift/Viability of Increased Transit Usage</b>   |                                    |                                    |                               | *                            | *                       |                     |
| d           | Vehicle trips (Daily and Peak Hour)   | INDEX, 4D                          | X                                  | 3.3                           | Goal 6, Goal 9               |                         | 1D3, 2C1, 2C2, 2G1  |
| e           | Bicycle usage   |                                    |                                    |                               |                              |                         |                     |

\* Indicator mentioned during SJVGRS Phase III presentations with Jurisdictions' elected officials